

SYSTEM AND METHOD FOR CHARACTERIZING THE PERMITTIVITY OF A MOLECULAR EVENT

ABSTRACT OF THE DISCLOSURE

A system and method for comparing the permittivities of test and reference samples to detect and identify molecular events is presented. A resonant detector configured to output measurement parameters when the detector is electromagnetically coupled to a supplied sample is provided. One or more permittivity coefficients is defined for the detector. A first output parameter is obtained from the detector when the detector is electromagnetically coupled to a reference sample. A second output parameter is obtained from the detector when the detector is electromagnetically coupled to the test sample. The difference between the first and second output parameters is applied to the one or more permittivity coefficients to compute the relative difference in permittivity between the test sample and reference sample.